

BSC. PART - II EXAMINATION - 2017

BOTANY HONOURS PAPER IV

Answer five questions attempting two from each Group in which

Q. No. 1 is compulsory

1. Select the correct answer for each of the following :
 - (a) Micro-organisms occurring at higher temperature are known as :
(i) Mesophiles (ii) Psychrophiles (iii) Thermophiles (iv) Hydrophiles
 - (b) Bacteria can be cultured on :
(i) Natural medium only (ii) Synthetic medium only
(iii) Living medium only (iv) All of the above
 - (c) P.P.L.O is also known as :
(i) Bacteria (ii) Mycoplasma (iii) Fungi (iv) Viruses
 - (d) Capsid of virus is made up of :
(i) Protein (ii) DNA (iii) RNA (iv) Lipid
 - (e) Which one of the following is having symbiotic association ?
(i) Azotobacter (ii) Rhizobium (iii) Nitrobacter (iv) All of the above
 - (f) Ustilago is known to cause :
(i) Rust (ii) Smut (iii) Red rot (iv) Ergot
 - (g) Burgandy mixture is a :
(i) Fungicide (ii) Pesticide (iii) Herbicide (iv) Insecticide
 - (h) An agent that causes dissemination of a pathogen is called :
(i) Plasmid (ii) Vector (iii) Vision (iv) Prion
 - (i) "Griffith effect" is also known as :
(i) Conjugation (ii) Transduction (iii) Transformation (iv) All of these
 - (j) Hot water treatment of infected seeds is effective in :
(i) Smut disease (ii) Late blight (iii) Red rot (iv) Ergot
 - (k) Wide spread and destructive development of a plant disease in large populations is called :
(i) Epiphytotic (ii) Endermic (iii) Sporadic (iv) Pandemic
 - (l) A visible expression of disease in the host plant is known as
(Fill up the blanks)
 - (m) is a heteroecious rust.
(Fill up the blanks)
 - (n) *Claviceps purpurea* is known to cause disease. (Fill up the blanks)
 - (o) Viruses that attack bacteria are called (Fill up the blanks)

GROUP - A

2. Describe any two methods of DNA transfer in bacteria.
3. What are the basic principles of micrometry? How will you determine the growth of bacteria?
4. Write notes on any two of the following :
(a) Mycoplasma (b) TMV (c) Antibiotics (d) Biopesticides
5. Give an account of the role of microbes in biological nitrogen fixation.

GROUP - B

6. Discuss about the defence mechanisms of the plants against pathogen attack.
7. Give symptoms, etiology and control of late blight of potato.
8. Write notes on any two of the following :
(a) Citrus canker (b) Red rot of sugarcane (c) Disease cycle
9. Write notes on any two of the following :
(a) Transgenic plants (b) Chemical control of plant disease (c) Obligate parasites
(d) Contributions of Dr. K.C. Mehta